

expedition is fulfilling the object for which it was sent out. The naval and the civilian staff seem actuated by one wish to do the utmost in their power, and certainly a large amount of material is being accumulated.

The experiences of the last three months have of course been somewhat trying to those of us who were not accustomed to a sea-life; but the health of the whole party has been excellent. There has been so much to do that there has been little time for weariness; and the arrangements continue to work in a pleasant and satisfactory way.

(Signed) CHARLES WYVILLE THOMSON.

MISCELLANEOUS.

A new Order of Hydrozoa. By GEORGE J. ALLMAN, F.R.S. &c.

ON the southern shores of France, at a slight depth below the surface of the sea, there may be found attached to stones small patches of one of the horny sponges which will probably arrest the attention of the zoologist by what will appear to him as an unusually obvious and well-defined condition of their efferent orifices or oscula.

If one of these patches be transferred to a phial of sea-water, the observer will soon be astonished by seeing that from every one of the apparent oscula a beautiful plume of hydroid tentacles will have become developed, and he will naturally believe that the form has at last been found which will remove all doubt as to the zoological position of the sponges, and decide in favour of the hydroid affinities recently assigned to them*.

A more careful examination, however, will show that the orifices on the surface have been incorrectly regarded as oscula, and that the tentacles form no part of the sponge, but proceed from an entirely different organism which is imbedded in its substance.

It will be further seen that the organism with which the sponge is thus associated is contained in a congeries of chitinous tubes which permeate the sponge-tissue, and open on its surface in the manner of genuine oscula; and it will be still further apparent that this organism, while undoubtedly a hydrozoon, and even presenting quite the aspect of a hydroid trophosome, is no hydroid at all, and cannot indeed be referred to any of the hitherto recognized orders of the Hydrozoa, but must take its place in an entirely new and as yet undefined order of this class.

The chitinous tubes and their contents are united by a common tubular plexus which lies towards the base of the sponge, and they thus constitute a composite colony of zooids. The tubes, towards their free extremities, where they open on the surface of the sponge,

* See Haeckel's "Kalkschwämme."

become much increased in width; and here their contents become developed into a very remarkable body, which has the power of extending itself beyond the orifice of the tube, and of again withdrawing itself far into the interior, exactly like the hydranth or polypite of a campanularian hydroid in its hydrotheca. When extended, it displays from around the margin of a wide terminal orifice its beautiful crown of tentacles; but when withdrawn into the interior of the cup-like receptacle, the tentacles are greatly contracted and thrown back into the cavity of its body. Its general appearance, indeed, is very like that of a campanularian hydranth; and a careful examination is needed in order to show that it possesses all the essential characters, not of a hydranth, but of a medusa. It has a circular canal surrounding the terminal orifice and supporting the tentacular crown, and it has four symmetrically disposed longitudinal canals extending from the circular canal backwards in the walls of the body. No manubrium could be detected, though this was carefully sought for at the point where it might be expected to be found—namely, where the medusiform zooid passes into the common cœnosarc which occupies the narrower portion of the tube; neither was there any appearance of a velum, nor of lithocysts or ocelli; but these are comparatively unessential modifications.

The reproductive system is probably developed in the walls of the longitudinal canals; but in none of the specimens examined was this part of the organization sufficiently mature to admit of a satisfactory demonstration.

For the little animal thus constructed I propose the name of *Stephanoscyphus mirabilis*. Whether it is to be regarded as parasitically connected with the sponge, or whether the two are only accidentally associated, it is at present impossible to say. At all events, in no instance did I find the *Stephanoscyphus* unaccompanied by the sponge.

Stephanoscyphus may then be regarded as a compound hydrozoon whose zooids are included in cup-like receptacles resembling the hydrothecæ of the calyptoblastic hydroids; but these zooids, instead of being constructed like the hydranths of a hydroid, are formed on the plan of a medusa. It has plainly very decided affinities with the Hydroida, but is nevertheless removed from these by a distance at least as great as that which separates from them the Siphonophora. It thus becomes the type of a new hydrozoal order, for which I propose the name of *THECOMEDUSÆ*.—*Nature*, July 30, 1874.

Description of the Skull of a new Species of Dolphin (Feresa attenuata). By Dr. J. E. GRAY, F.R.S. &c.

The British Museum has lately received from M. Godeffroy, of Hamburg, a skull of a dolphin (but, unfortunately, it is without any habitat) which proves to be an unrecorded species of the genus *Feresa*.